DBS EXTERNAL API GATEWAY

INWARD CREDIT NOTIFICATION MESSAGE SPECIFICATION GUIDE

version 1.1

Document Sign-Off

Revision History

Revision Date	Version	Summary of Changes
28/03/2019	0.3	-Added Revision History for tracking purpose. -Updated description of receiving account number
05/04/2019	0.4	-Updated remark for timestamp and value date -Re-correct the field sequence number
16/04/2019	0.5	-Updated the sender account number with blank value in the sample message
30/04/2019	0.6	-Updated sample message with sample valid references
19/07/2019	0.7	-To identify Inward Paynow for FAST only
28/08/2019	0.8	-Added remark for customerReference and receivingParty virtualAccountNo value.
02/09/2019	0.9	-Updated sample messages
04/09/2019	1.0	-Updated virtualAccountName, senderBankCode and senderBranchCode to Currently not in used for ICN spec. -Updated sample messages.
11/10/2019	1.1	-Added note on ICN behaviour for possible duplicate ICN and duplicate Scan and Pay by Consumers

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1. INWARD CREDIT NOTIFICATION MESSAGE SPECIFICATION

1.1. Overview

The guide provides the message specifications for Inward Credit Notification messages for inward credits into your DBS/POSB accounts.

1.2. Message Transfer & Structure

The Inward Credit Confirmation REST API is using the JSON (JavaScript Object Notation) format and is sent via a HTTPS request.

Each message consists of 3 building blocks: the header, body and signature.

BUILDING BLOCK	FIELD NAME
Header	Identifies the type of message with the host name and the organisation ID (provided by DBS) and key ID (provided by customer)
Body	Consists of the message details that are encrypted with the receiver's PGP public key
Signature	Contains the hash of the message that is signed using sender's PGP private key

1.3. URL

METHOD	BANKING SERVICE URL
POST	<To be provide by customer>

1.4. Character Set

The message can support the following set of characters:

1.　　　a b c d e f g h I j k l m n o p q r s t u v w x y z

2.　　　A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

3.　　　0 1 2 3 4 5 6 7 8 9 0

4.　　　! # $ % & ' ( ) * + , - . / : ; < = > ? @ [ ] ^ _ ` { | } ~
　　　　These characters can be valid characters in the fields specified.

5.　　　Space. Space can be valid in the fields specified but should not be inserted as the first or last character within any field.

1.5. Field Type

TYPE	DESCRIPTION
Numeric (N)	0-9; two decimal point scaling
Alphabetic (A)	a-z, A-Z
Alphanumeric (AN)	a-z, A-Z, 0-9
DateTime	YYYY-MM-DDTHH:MM:SS.mmm
SWIFT character set (S)	a-z, A-Z, 0-9 / - ? : ( ) . , ' + space character
String character set (G)	a-z, A-Z. 0-9 ! # $ % & ' ( ) * + , - . / : ; < '= > ? @ [ ] ^ _ ` { | } ~ space character
Chinese character set (ANC)	a-z, A-Z, 0-9 Chinese character (1 chinese character is 3 or 4 bytes)
Any character set (ANY)	Any character set above

Note: '\' and '"' is not supported.

1.6. Field Requirement

REQUIREMENT	DESCRIPTION
M	Mandatory
O	Optional
CM	Conditional Mandatory

1.7. Response Message Format

Credit Notification response from the bank to customer.

NO.	FIELD NAME	TYPE (LENGTH)	M / O / CM	DESCRIPTION
1.0	**header**	**Class**	**M**	**This block contains the message header**
1.1	msgId	AN(35)	M	Unique Message ID
1.2	orgId	AN(12)	M	Organisation ID provided by DBS
1.3	timeStamp	DateTime	M	Date and time when incoming credit transaction is received. Format: YYYY-MM-DDTHH:MM:SS.mmm. E.g. 2017-03-04T15:07:26.123

NO.	FIELD NAME	TYPE (LENGTH)	M / O / CM	DESCRIPTION
1.4	ctry	ISO Country code	M	DBS Country where the account is held
2.0	**txnInfo**	**Class**	**M**	**This block contains the transaction details.**
2.1	txnType	AN	M	Payment type through which account was credit. See APPENDIX A: TRANSACTION CODE
2.2	customerReference	S(35)	M	From the request message. customerReference to prefix with value "DICN" to receive ICN for CASA credit.
2.3	txnRefId	AN(35)	M	Unique transaction reference by the bank.
2.4	txnDate	Date	M	Date when transaction is received. Format: YYYY-MM-DD E.g. 2018-01-25
2.5	valueDt	Date	M	Date when incoming credit transaction is received. Format: YYYY-MM-DD E.g. 2018-01-25
2.6	**receivingParty**	**Class**	**M**	**This block contains the recipient details**
2.6.1	name	AN(70)	O	Recipient account name
2.6.2	accountNo	AN(34)	M	Recipient account number/virtual account number. Hyphens will be excluded.
2.6.3	virtualAccountNo	AN(34)	O	Currently not in used.
2.6.4	virtualAccountName	AN(70)	O	Virtual account name (if available). * Currently not in used.
2.6.5	proxyType	AN(1)	O	Proxy type to which the payment was sent (applicable for HK only)
2.6.6	proxyValue	G(34)	O	Proxy value to which the payment was sent (applicable for HK only)
2.7	**amtDtls**	**Class**	**M**	**This block contains details on the received amount.**
2.7.1	txnCcy	AN(3)	M	3 character ISO Currency code.
2.7.2	txnAmt	N(9).N(2)	M	Transaction settlement amount with cents as 2 decimal points. E.g. $1,000.99 will be formatted as '1000.99'.
2.8	**senderParty**	**Class**	**O**	**This block contains details on the sender party. This block will be available only if one of the information is present for the payment type.**
2.8.1	name	AN(70)	O	Name of the sender party.
2.8.2	accountNo	AN(34)	O	Account number of sender.
2.8.3	senderBankId	AN(34)	O	Sender Bank BIC or Sender Bank Local Clearing Code. If both are provided sender Bank BIC will be used.

NO.	FIELD NAME	TYPE (LENGTH)	M / O / CM	DESCRIPTION
2.8.4	senderBankCode	AN (34)	O	Sender Bank Local Clearing Code (applicable for HK only) * Currently not in used.
2.8.5	senderBranchCode	AN (34)	O	Sender Branch Code (applicable for HK only) * Currently not in used.
2.9	**rmtInf**	**Class**	**O**	**This block contains the payment details. This block will be available only if one of the information is present for the payment type.**
2.9.1	paymentDetails	AN(140)	O	Details of payment. This will be made available if accompanying the original payment.
2.9.2	addtlInf	AN(520)	O	Additional details. This will be made available if accompanying the original payment.
2.9.3	purposeCode	AN(20)	O	This shall contain the purpose code of the payment as selected by remitter *Applicable for HK only

Note:

Duplicate ICN

In the event that the bank did not receive a http 200 response for the ICN API message that it sent to customer's server, the bank will retry once and fire the same ICN API message to customer's server again. Customers should implement a retry handling logic to detect same bank transaction reference and/or message ID within ICN API messages received, and ignore the subsequent ICN API message.

Duplicate Scan and Pay by Consumers

When consumers scan and pay the same QR more than one time, corporate customers may also receive duplicate ICNs. These ICNs would contain the same customer transaction reference, but have different bank transaction reference. The different bank transaction references represent the multiple credits that have occurred on the corporate customer's account (i.e. consumers pay more than once to the corporate customer's account).

Reference field name:

Field name	Remark
msgId	Message ID
customerReference	Customer transaction reference
txnRefId	Bank transaction reference

1.8. Sample Response Message

a. Virtual Account

Content-Type : application/json

```json
{
        "header": {
                "msgId": "IRGPPHK290419124937A0006051",
                "orgId": "DBSTDS01",
                "timeStamp": "2018-01-22T15:29:53.202",
                "ctry": "HK"
        },
        "txnInfo": {
                "txnType": "FPS",
                "customerReference": "DICN6615600554311",
                "txnRefId": "1904291337531RBCO011",
                "txnDate": "2018-01-22",
                "valueDt": "2018-01-22",
                "receivingParty": {
                        "name": "rpName",
                        "accountNo": "920171277999001"
                },
                "amtDtls": {
                        "txnCcy": "HKD",
                        "txnAmt": 35.30
                },
                "senderParty": {
                        "name": " Company Name1",
                        "senderBankId": "185"
                },
                "rmtInf": {
                        "paymentDetails": "TEST 123456",
                        "purposeCode": "CXBSNS"
                }
        }
}
```

b. Non Virtual Account

Content-Type : application/json

```json
{
        "header": {
                "msgId": "IRGPPHK290419124937A0006051",
                "orgId": "DBSTDS01",
                "timeStamp": "2018-01-22T15:29:53.202",
                "ctry": "HK"
        },
        "txnInfo": {
                "txnType": "FPS",
                "customerReference": "DICN6615600554311",
                "txnRefId": "1904291337531RBCO011",
                "txnDate": "2018-01-23",
                "valueDt": "2018-01-23",
                "receivingParty": {
                        "name": "rpName",
                        "accountNo": "0039009100",
                        "proxyType": "M",
                        "proxyValue": "+852-12345678"
                },
```

```
                "amtDtls": {
                        "txnCcy": "HKD",
                        "txnAmt": 38.50
                },
                "senderParty": {
                        "name": " Company Name2",
                        "senderBankId": "185"
                },
                "rmtInf": {
                        "paymentDetails": "TEST 123456",
                        "purposeCode": "CXBSNS"
                }
        }
}
```

2. APPENDIX A: TRANSACTION CODE

TRANSACTION CODE	DESCRIPTION	COUNTRY
FAST	Inward FAST Transfer	SG
INWARD PAYNOW	Inward FAST PayNow Transfer	SG
FPS	FPS Payment	HK
E-ACH CREDIT	Inward E-ACH Transfer	TW (To be covered in phase 2)
IUPI	Inward UPI Credit	IN (To be covered in phase 2)